

Attorney's Docket No.: 00167-496011 / 02-31-0377

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Lehmann K. Li et al. Art Unit : 3731
Serial No. : 09/580,777 Examiner : Paul A. Roberts
Filed : May 26, 2000
Title : ROTOR BLADE ANCHOR AND TOOL FOR INSTALLING SAME

ALLOWED INDEPENDENT CLAIMS FOR 09/580,777

1. A method for securing an anchor to biological tissue, said anchor being detachably and pivotably mounted to an insertion tool, said anchor having a longitudinal axis, said insertion tool having a first axis that extends longitudinally with respect to said insertion tool, and a second axis which extends perpendicularly to said first axis, said method comprising the steps of:

holding said anchor with said insertion tool;

applying a biasing force to said anchor to bias said anchor and cause said anchor to rotate about said second axis toward a position that is substantially perpendicular to said first axis, said step of applying a biasing force and causing said anchor to rotate about said second axis being accomplished through the use of a biasing member of said insertion tool, said biasing member moving radially outwardly to cause said anchor to rotate about said second axis;

inserting said anchor held by said insertion tool, with said longitudinal axis of said anchor being disposed in an orientation that is not perpendicular to said first axis, into a borehole in said biological tissue; and

rotating said anchor about said first axis, said biasing force causing said anchor to engage with a sidewall of said bore hole and to penetrate into said sidewall;

whereby said anchor is screwed into said biological tissue as said insertion tool is rotated about said first axis until said anchor achieves an orientation substantially perpendicular to said first axis.

10. A method for securing an anchor to biological tissue, said anchor being detachably and pivotably mounted to an insertion tool, said anchor having a longitudinal axis, said insertion tool having a first axis that extends longitudinally with respect to said insertion tool, and a second axis which extends perpendicularly to said first axis, said method comprising the steps of:

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holding said anchor with said insertion tool;
applying a biasing force to said anchor to bias said anchor and cause said anchor to rotate about said second axis toward a position that is substantially perpendicular to said first axis;
inserting said anchor held by said insertion tool, with said longitudinal axis of said anchor being disposed in an orientation that is not perpendicular to said first axis, into a borehole in said biological tissue; and
rotating said anchor about said first axis, said biasing force causing said anchor to engage with a sidewall of said bore hole and to penetrate into said sidewall;
whereby said anchor is screwed into said biological tissue as said insertion tool is rotated about said first axis until said anchor achieves an orientation substantially perpendicular to said first axis;
wherein said step of applying a biasing force to bias said anchor and cause said anchor to rotate about said second axis is accomplished through the use of a biasing member of said insertion tool and further wherein said step of inserting further includes compressing said biasing member so that an outer periphery of the combination of said anchor and said biasing member is smaller than an outer periphery of said combination when said anchor does not compress said biasing member.